

Central Valley Regional Water Quality Control Board

27 March 2015

NOTICE OF VIOLATION

Dennis W. Hurt
Longview Production Company
7775 South Madera Avenue
Kerman, CA 93630

CERTIFIED MAIL
7014 2870 0000 7593 4849

INSPECTION REPORT – LONGVIEW PRODUCTION COMPANY, SURFLUH LEASE, RAISIN CITY OIL FIELD, FRESNO COUNTY

Central Valley Regional Water Quality Control Board (CVRWQCB) staff (Staff) inspected the Surfluh Lease in the Raisin City Oil Field on 4 February 2015 to ascertain the status of one surface impoundment (pond) identified by the California Division of Oil, Gas, and Geothermal Resources (DOGGR) as inactive. Disposal operations at the facility are not regulated by Waste Discharge Requirements (WDRs) and a Report of Waste Discharge has not been received. Staff's comments are presented in the enclosed inspection report.

Staff observed one unlined, pond being used for evaporation and percolation of wastewater from oil production operations. The pond was neither fenced nor netted. Staff collected one wastewater sample from pond and submitted it to a certified laboratory for analysis of general minerals and volatile organic compounds.

Analytical results of the wastewater sample indicate that Longview Production Company discharged oil field produced wastewater with waste constituent concentrations in excess of maximum electrical conductance, chloride, and boron concentration limits contained in the *Water Quality Control Plan for the Tulare Lake Basin*, Second Edition, revised January 2004 (Basin Plan), Discharge to Land, Oil filed Wastewater section. Basin Plan limits are an EC of 1,000 microsiemens per centimeter ($\mu\text{S}/\text{cm}$), chloride of 200 milligrams per liter (mg/L), and boron of 1 mg/L . The discharge of wastewater to the pond occurred without the submission of a RWD is a violation of 13230(a) of the CWC. The unauthorized wastewater discharge to the ground needs to cease upon receipt of this NOV. Any discharges are subject to enforcement pursuant to CWC Section 13350, and potential liability up to \$10 for each gallon discharged or \$5,000 for each day that the discharge occurs.

There were pools of crude oil throughout the tank farm containment area east of the pond location. The oil impacted soil needs to be cleaned up.

If Longview Production Company intends to retain the pond for the discharge of wastes or use the pond during maintenance or other upset conditions, a Report of Waste Discharge (RWD), along with the appropriate filing fee, needs to be submitted for issuance of WDRs. The discharge of wastes to a pond without WDRs, or before 140 days following a determination that the submitted RWD is complete and adequate, is a violation of Section 13260 of the California Water Code (CWC). The RWD needs to include a demonstration that the California Environmental Quality Act (CEQA) has been satisfied. A violation of 13260(a) of the CWC may subject Longview Production Company to potential liability pursuant to CWC Section 13350 or 13261, in an amount up to \$10 for each gallon discharged or \$5,000 for each day that the discharge occurs, and/or up to \$1,000 for each day the RWD is not submitted.

If you have any questions regarding this inspection, please contact Alejandra Lopez at (559) 445-6071 or by email at Alejandra.Lopez@waterboards.ca.gov



DANE S. JOHNSON
Senior Engineering Geologist
Professional Geologist No. 4239

Enclosure: Inspection Report
Laboratory Analytical Results

cc: Tim Boardman, California Division of Oil Gas and Geothermal Resources, Coalinga
California Department of Fish and Wildlife, Fresno

5F OFFICE N/A	WDID 400311	FACILITIES INSPECTION REPORT	DISCHLND PROGRAM 550202	1/4 PAGE NO. 813689
ORDER NO.	REG MEASURE ID		PARTY ID	PLACE ID

LONGVIEW PRODUCTION COMPANY DISCHARGER NAME 7775 SOUTH MADERA AVENUE STREET ADDRESS KERNAN, CA 93630 CITY, STATE, ZIP CODE DENNIS W. HURT DISCHARGER CONTACT PERSON (559) 567-6034 TELEPHONE NO.	RAISIN CITY, SURFLUH FACILITY NAME SE ¼, NE ¼, OF SECTION 14, T15S, R17E, MDB&M STREET ADDRESS KERNAN, FRESNO COUNTY CITY, STATE, ZIP CODE ROBERT RICHARDSON FACILITY CONTACT PERSON (559) 217-8775 TELEPHONE NO.
E-MAIL ADDRESS	E-MAIL ADDRESS

GENERAL INSPECTION INFORMATION

Inspection Type: <u>A Type Compliance Inspection</u>	Lead Inspector: <u>Alejandra Lopez</u>
2/04/2015 to 2/04/2015	0900 - 1030
INSPECTION DATE(S)	INSPECTION TIME
GENERAL WEATHER CONDITIONS	
Humid cool and fog is clearing	

INSPECTION ATTENDEE(S)			
Alejandra Lopez	Regional Water Board	(559) 445-6071	Alejandra.Lopez@waterboards.ca.gov
NAME	COMPANY/AGENCY	TELEPHONE NO.	E-MAIL ADDRESS
Robert Richardson	Longview Production Company	(559) 217-8775	rrichardson@longviewgas.com
NAME	COMPANY/AGENCY	TELEPHONE NO.	E-MAIL ADDRESS
NAME	COMPANY/AGENCY	TELEPHONE NO.	E-MAIL ADDRESS

INSPECTION SUMMARY (for CIWQS entry – 500 character maximum)

Surfluh Lease is not regulated by Waste Discharge Requirements (WDR's), and a Report of Waste Discharge (RWD) has not been received. One unlined and declared closed (9-5-2001) surface impoundment (pond) depression was being used for evaporation and percolation of oil production wastewater. Violations observed were oil discharged to land (oil stock tank overflowed), low berm, wastewater limits exceeded, no freeboard, and wastewater unauthorized discharge to land.

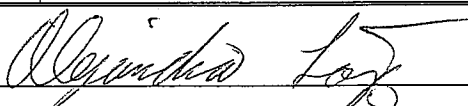
INSPECTION VIOLATIONS SUMMARY (if applicable)


Identify VIOLATIONS noted during inspection in table below. For each violation documented entered into CIWQS, identify Violation ID and Violation Type, describe violation, and identify section of the WDRs or Water Code violated.

Label	Violation ID	Violation Type	Violation Description	Section of the WDRs Violated
V1	988136	Basin Plan Prohibition	Discharge of high salinity produced water to unlined pond	Tulare Lake Basin Plan
V2	988137	Unauthorized Discharge	Failure to submit a completed Report of Waste Discharge	CWC section 13260(a)
V3				
V4				
V5				
V6				

OTHER VIOLATIONS (if applicable)

SMR violations?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Evaluated	Notes:
File Review violations?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Evaluated	Notes:

Lead Inspector ID: 451267 Signature:  Date: 3-27-2015

Inspection Tracking Information Reviewed by: (1)  (2) _____ (3) _____

CIWQS Coordinator

Filename: Longview Production Company, Raisin City, Surfluh CIWQS Entry Date: 3/23/2015 CIWQS Inspection ID: 19811136

FACILITY INFORMATION

Discharge to a previously closed unlined pond depression area.

Active

FACILITY DESCRIPTION (e.g., total area in acres, number of waste management units, etc.)

STATUS (active, inactive, closed)

Oil field production wastewater (produced water).

Oil/Gas Extraction

WASTE TYPES

FACILITY CLASSIFICATION

Produced water is disposed of into a depression at a previously closed pond site.

DISPOSAL DESCRIPTION (e.g., composting, landfill, surface impoundment, etc.)

BACKGROUND

Pond was closed on 5 September 2001 under a different operator. This is the first inspection under Longview Energy Company as operator. According to DOGGR all Raisin City wells belonging to Golden Exploration and Production Corp. were transferred to Longview Production Company on 1 November 2004.

INSPECTION GIS DATA

GIS Equipment used:

MANUFACTURER		MODEL	SERIAL NO.	DATUM
Description of Measured Point	Latitude	Longitude	Datum	Comments
Closed pond depression	36.62782	-120.08127	WGS84	Active discharge

INSPECTION OBSERVATIONS AND FINDINGS

Describe observations and findings and identify those that document and reference each violation listed in the Inspection Violations Summary table by identifying the cited violation number within parentheses following the observation/finding (e.g., Exposed waste on top deck (V1)).

The site was inspected to ascertain the status of one unlined, pond identified by DOGGR as inactive. Discharge of produced wastewater at the facility is not regulated by WDRs. The lease is discharging wastewater to an unlined depression located in the closed pond area. Photos were taken to document observed conditions (See Page 4),

The pond contained produced wastewater and was neither netted nor fenced (See Attachment 1 for a vicinity map showing pond location). Pond dimensions are approximately 70 feet by 60 feet and one foot deep (Photo 1). One wastewater sample was collected from the pond and submitted to a certified laboratory for analysis of general minerals and volatile organic compounds (VOCs). There were erosional features from the discharge point leading to the pond (Photo 2). The discharge area had what appear to be saline precipitates (Photo 4). The discharge area is overlain by several pipe joints and there are two open pipes in the ground.

Mr. Richardson mentioned that water accumulation in the pond was all rainwater from the tank containment area. According to wunderground.com the cumulative rain fall in the months of December was 2.88 inches, in January it was 0.03 inches, and the days leading to the inspection in February no rain fell in Kerman, California. When observing the elevation of the source at the top of the erosional channel it was noted that precipitation follows the path of least resistance from high to low areas. Any rain water accumulation in the tank containment area would not drain to the pond as there is a slight elevation increase between the pond and the tank area. In addition the slight amber color of the wastewater in the pond appears characteristic of oil production wastewater discharged to ponds.

Approximately 680 feet east of the pond location, Staff observed a large oil spill within the five tank containment area (See Page 5). Mr. Richardson mentioned that one of the oil stock tanks had overflowed and that the oil spill had been discovered in the morning. The berm to the containment area had been torn down in a section to allow heavy machinery to enter and pour fresh soil over the oil pools that extended throughout the containment area. There was a hole at the base of the berm wall in the east side of the containment area. No evidence was observed of the oil spill leaving the containment area. Fresh soil had been sprinkled throughout the containment area, yet there were lots of oil pools remaining during the inspection (Photos 5 through 10).

I mentioned to Mr. Richardson that unauthorized discharges had to be reported to the appropriate agencies. For specific rules and regulations on spill reporting procedures please refer to the "California Hazardous Materials Spill / Release Notification guidance" by California Office of Emergency Services, February 2014.

SAMPLING INFORMATION AND OBSERVATIONS

Were samples collected during the inspection? ☒ Yes ☐ No
Did discharger collect split samples? ☐ Yes ☒ No

Are sample results included in report? ☒ Yes ☐ No

SAMPLE COLLECTION INFORMATION AND OBSERVATIONS

AL150402-6	Pond wastewater	0940	1
SAMPLE ID	SAMPLE DESCRIPTION/OBSERVATIONS	SAMPLE TIME (hours)	PHOTO NO.
SAMPLE ID	SAMPLE DESCRIPTION/OBSERVATIONS	SAMPLE TIME (hours)	PHOTO NO.

DISCUSSION OF SAMPLING RESULTS

Discuss sampling results (e.g., discuss whether sampling results show compliance with WDRs).

Wastewater analysis of one sample (AL-150402-6) collected from the pond was submitted to a certified laboratory and analyzed for general minerals and VOCs.

Sample analytical results were: electrical conductance (EC) 41,000 $\mu\text{S}/\text{cm}$; total dissolved solids (TDS) 27,000 milligrams per liter (mg/L); chloride was detected at 15,000 mg/L; boron at 7.7 mg/L; and sodium at 8,900 mg/L; benzene, toluene, ethylbenzene, and xylenes, (BTEX) were all not detected, see attached analytical report for remaining constituent concentrations.

Facility wastewater contains EC, chloride, and boron concentrations that exceed allowable concentrations for discharges to surface impoundments contained in the Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised January 2004 (Basin Plan).

CONCLUSIONS

Summarize the conclusions of the inspection(s) below.

1. There is one un-lined pond being used for evaporation and percolation of oil field produced wastewater. Disposal operations to the pond are not regulated by WDRs and a RWD has not been submitted.
2. Facility pond wastewater contains an EC of 41,000 $\mu\text{S}/\text{cm}$, chloride 15,000 mg/L, and boron 7.7 mg/L concentrations that exceed allowable concentrations for disposal of oil field wastewater, which is a violation of the Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised January 2004 (Basin Plan).
3. Oil spill impacted soil needs to be cleaned up.

Note: Inspection photographs follow

Attachments include: Attachment 1. Vicinity-Pond Map
Attachment 2. Analytical data
Attachment 3. Precipitation log

PHOTOGRAPHS

Photo 1. North view of sump

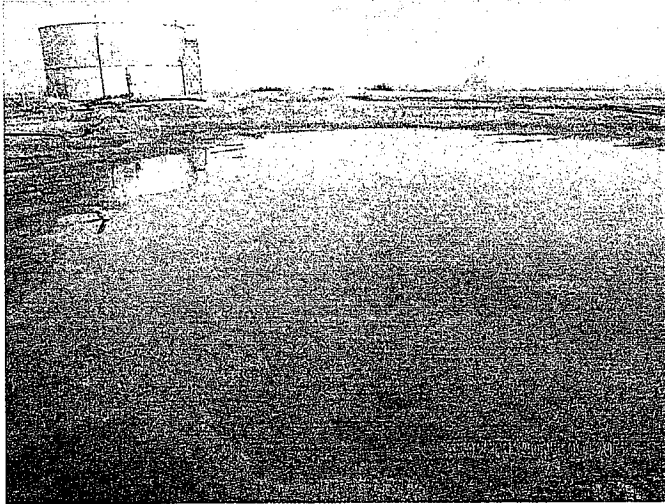


Photo 3. Erosion at discharge source

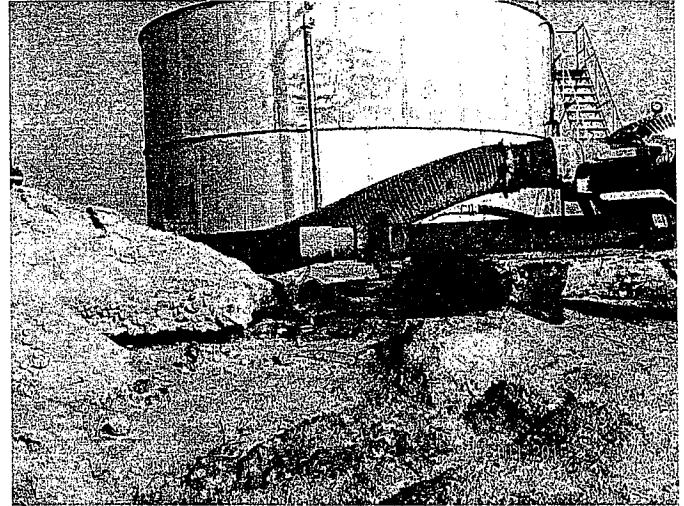


Photo 2. Wastewater erosional channels

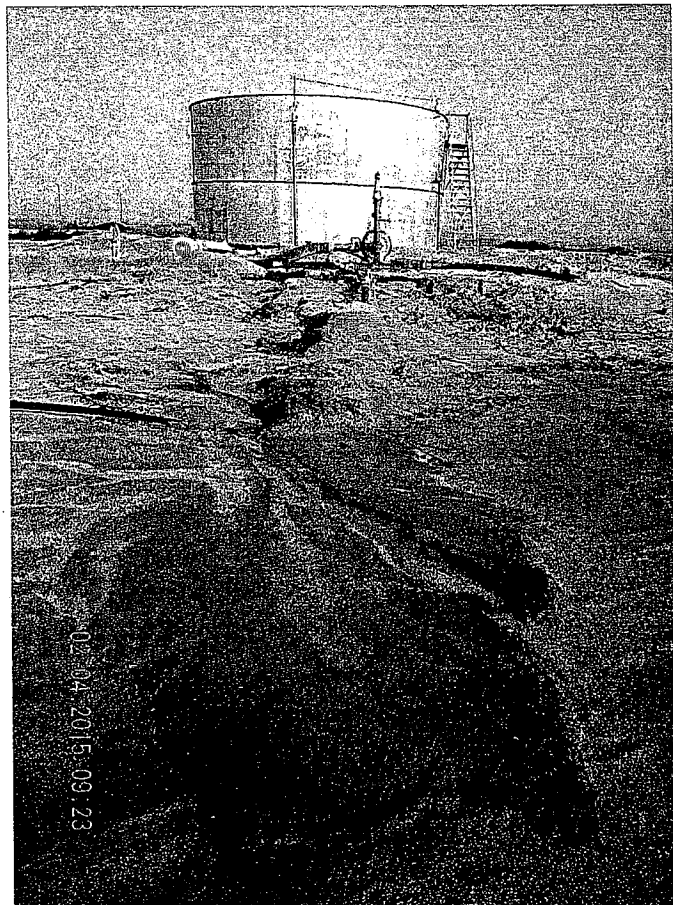


Photo 4. Accumulation of precipitates

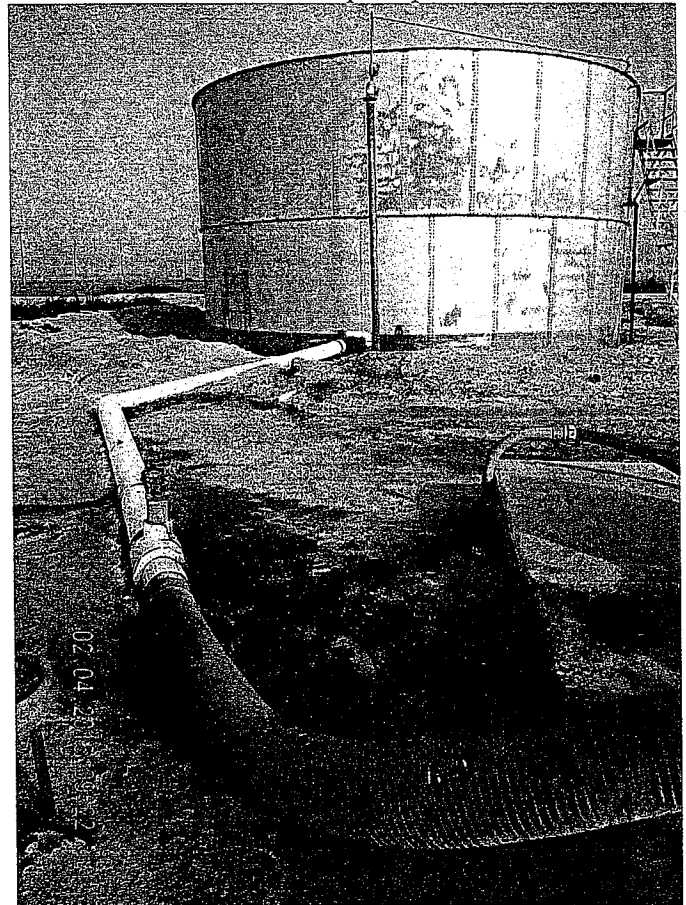


Photo 5. Hole at base of berm, oil spill

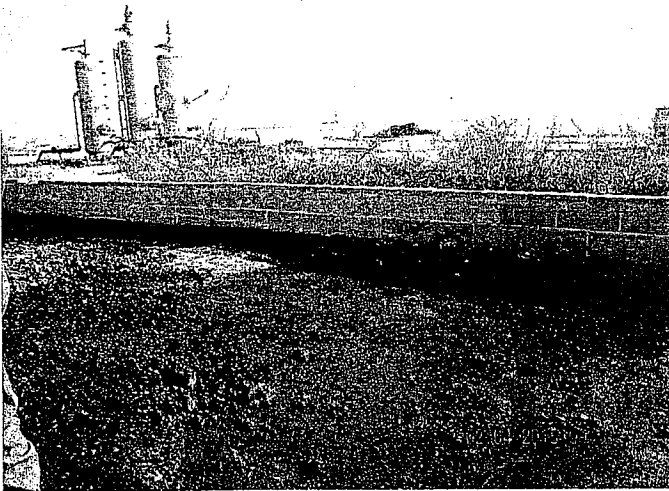


Photo 8. Oil spill splash zone



Photo 6. South view, containment berm removed



Photo 9. NW view, fresh soil over oil pools



Photo 7. South view, west side of containment area



Photo 10. Oil pools at tank base



Attachment 1

Site map

Inspection 4 February 2015

LONGVIEW ENERGY COMPANY
SURFLUH LEASE, RAISIN CITY OIL FIELD
SE ¼, NE ¼, OF SECTION 14, T15S, R17E, MDB&M



Aerial image date 4/13/2013

Site is unregulated. One unlined and not netted pond is used for disposal of wastewater. There appears to be no freeboard. Mr. Richardson claimed that the liquid in the pond was precipitation accumulation. According to Weather Underground there was no rain in the days leading to the inspection in February, there was a cumulative rain of 0.03 inches in January and 2.88 inches in December. It is highly unlikely that the water in the sum is rainwater. Pond sample analytical results were: electrical conductance (EC) 41,000 $\mu\text{S}/\text{cm}$; total dissolved solids (TDS) 27,000 milligrams per liter (mg/L); chloride was detected at 15,000 mg/L; boron at 7.7 mg/L; and sodium at 8,900 mg/L; benzene, toluene, ethylbenzene, and xylenes, (BTEX) were all not detected.

There were pools of crude oil in the containment area east of the pond. Fresh soil was sprinkled throughout the containment area, yet oil pools remain in some sections. Oil pools pose an entrapment threat to wildlife. Oil impacted soil need to be cleaned up.



California ELAP Certificate #1371

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(559) 268-7021 Phone
(559) 268-0740 Fax

RWQCB - Fresno
1685 E Street
Fresno CA, 93706-2007

Project: 13-014-150
Project Number: Pyramid Hills Oil Field - DOGGR Sump List
Project Manager: Anthony Toto

Reported:
2/19/2015

AL150402-6

Surf flush

BB05002-05 (Waste Water)

Sampled: 02/04/15 09:40

Analyte	Flag	Result	Reporting Limit	MDL	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Method
Inorganics											
Total Alkalinity as CaCO ₃		150	1.0	0.23	mg/L	1	U5B0514	CMG	2/5/15 16:01	2/5/15 19:38	SM2320B
Bicarbonate Alkalinity as HCO ₃		180	1.3	0.23	mg/L	1	U5B0514	CMG	2/5/15 16:01	2/5/15 19:38	SM2320B
Carbonate Alkalinity as CO ₃		ND	1.0	0.23	mg/L	1	U5B0514	CMG	2/5/15 16:01	2/5/15 19:38	SM2320B
Hydroxide Alkalinity as OH		ND	1.0	0.23	mg/L	1	U5B0514	CMG	2/5/15 16:01	2/5/15 19:38	SM2320B
Cation/Anion Balance (% Difference)		4.2			%	1	U5B1817	JAA	2/18/15 17:00	2/18/15 17:01	SM 1030F
Chloride		15000	600	5.5	mg/L	300	U5B0517	ETH	2/5/15 17:35	2/7/15 7:54	EPA 300.0
Specific Conductance (EC)		41000	1.0	0.26	µS/cm	1	U5B0514	CMG	2/5/15 16:01	2/5/15 19:38	SM2510B
Nitrate as NO ₃		ND	100	0.88	mg/L	50	U5B0517	ETH	2/5/15 17:35	2/5/15 21:06	EPA 300.0
Nitrite as N		ND	15	0.53	mg/L	50	U5B0517	ETH	2/5/15 17:35	2/5/15 21:06	EPA 300.0
Orthophosphate as P		ND	12	0.14	mg/L	50	U5B0517	ETH	2/5/15 17:35	2/5/15 21:06	EPA 300.0
Sulfate as SO ₄	J	40	100	0.47	mg/L	50	U5B0517	ETH	2/5/15 17:35	2/5/15 21:06	EPA 300.0
Total Dissolved Solids		27000	200	160	mg/L	20	U5B0901	MVY	2/9/15 8:09	2/10/15 13:10	SM 2540C
Metals - Totals											
Boron		7.7	0.10	0.0017	mg/L	1	U5B0509	DAR	2/9/15 12:35	2/10/15 22:25	EPA 200.7
Calcium		960	100	7.6	mg/L	500	U5B0509	DAR	2/9/15 12:35	2/12/15 19:15	EPA 200.7
Hardness		3700	250		mg equiv. CaCO ₃ /L	500	[CALC]	DAR	2/12/15 19:15	2/12/15 19:15	[CALC]
Iron		2.6	0.20	0.034	mg/L	1	U5B0509	DAR	2/9/15 12:35	2/10/15 22:25	EPA 200.7
Magnesium		320	0.20	0.018	mg/L	1	U5B0509	DAR	2/9/15 12:35	2/10/15 22:25	EPA 200.7
Manganese		1.5	0.010	0.00035	mg/L	1	U5B0509	DAR	2/9/15 12:35	2/10/15 22:25	EPA 200.7
Potassium		100	2.0	0.15	mg/L	1	U5B0509	DAR	2/9/15 12:35	2/10/15 22:25	EPA 200.7
Sodium		8900	1000	260	mg/L	500	U5B0509	DAR	2/9/15 12:35	2/12/15 19:15	EPA 200.7
Volatile Organics											
Dichlorodifluoromethane (CFC-12)		ND	0.50	0.19	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Chloromethane	J	0.46	0.50	0.16	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Vinyl chloride		ND	0.50	0.16	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Bromomethane		ND	1.0	0.32	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Chloroethane		ND	0.50	0.16	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,1-Dichloroethene		ND	0.50	0.14	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Carbon disulfide		ND	0.50	0.14	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Acrolein		ND	10	1.5	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Methylene chloride		ND	1.0	0.20	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
trans-1,2-Dichloroethene		ND	0.50	0.11	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B

Moore Twining Associates, Inc.

Juliane Adams, Director of Analytical Chemistry

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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California ELAP Certificate #1371

RWQCB - Fresno
1685 E Street
Fresno CA, 93706-2007

Project: 13-014-150
Project Number: Pyramid Hills Oil Field - DOGGR Sump List
Project Manager: Anthony Toto

Reported:
2/19/2015

AL150402-6

BB05002-05 (Waste Water)

Sampled: 02/04/15 09:40

Analyte	Flag	Result	Reporting Limit	MDL	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Method
Volatile Organics											
Methyl tert-Butyl Ether (MTBE)		ND	1.0	0.36	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,1-Dichloroethane		ND	0.50	0.12	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Acrylonitrile		ND	5.0	2.9	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
cis-1,2-Dichloroethane		ND	0.50	0.15	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
2,2-Dichloropropane		ND	1.0	0.24	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Bromochloromethane		ND	0.50	0.20	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Chloroform		ND	0.50	0.14	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Carbon tetrachloride		ND	0.50	0.16	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,1,1-Trichloroethane (TCA)		ND	0.50	0.16	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,1-Dichloropropene		ND	0.50	0.12	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Benzene		ND	0.50	0.10	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,2-Dichloroethane (1,2-DCA)		ND	0.50	0.10	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Trichloroethene (TCE)		ND	0.50	0.17	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Dibromomethane		ND	0.50	0.14	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,2-Dichloropropane		ND	0.50	0.10	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Bromodichloromethane		ND	0.50	0.13	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
cis-1,3-Dichloropropene		ND	0.50	0.11	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Toluene		ND	0.50	0.27	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
trans-1,3-Dichloropropene		ND	0.50	0.14	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Tetrachloroethene (PCE)		ND	0.50	0.12	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Dibromochloromethane		ND	0.50	0.11	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,3-Dichloropropane		ND	0.50	0.10	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,2-Dibromoethane (EDB)		ND	0.50	0.22	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Ethylbenzene		ND	0.50	0.10	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Chlorobenzene		ND	0.50	0.10	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,1,1,2-Tetrachloroethane		ND	0.50	0.12	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
m,p-Xylene		ND	1.0	0.20	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
o-Xylene		ND	0.50	0.10	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Bromoform		ND	1.0	0.12	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Isopropylbenzene		ND	1.0	0.10	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Bromobenzene		ND	0.50	0.10	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
n-Propylbenzene		ND	1.0	0.10	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,3,5-Trimethylbenzene		ND	0.50	0.11	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
2-Chlorotoluene		ND	0.50	0.10	µg/L	1	U5B0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B

Moore Twining Associates, Inc.

Juliane Adams, Director of Analytical Chemistry

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



2527 Fresno Street
Fresno, CA 93721
(559) 268-7021 Phone
(559) 268-0740 Fax

California ELAP Certificate #1371

RWQCB - Fresno
1685 E Street
Fresno CA, 93706-2007

Project: 13-014-150
Project Number: Pyramid Hills Oil Field - DOGGR Sump List
Project Manager: Anthony Toto

Reported:
2/19/2015

AL150402-6

BB05002-05 (Waste Water)
































Sampled:02/04/15 09:40

Analyte	Flag	Result	Reporting Limit	MDL	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Method
Volatile Organics											
1,2,3-Trichloropropane (123TCP)		ND	0.50	0.29	µg/L	1	USB0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
4-Chlorotoluene		ND	0.50	0.10	µg/L	1	USB0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
tert-Butylbenzene		ND	1.0	0.10	µg/L	1	USB0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,2,4-Trimethylbenzene		ND	1.0	0.10	µg/L	1	USB0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
sec-Butylbenzene		ND	0.50	0.10	µg/L	1	USB0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
p-Isopropyltoluene		ND	1.0	0.10	µg/L	1	USB0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,3-Dichlorobenzene		ND	0.50	0.040	µg/L	1	USB0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,4-Dichlorobenzene		ND	0.50	0.10	µg/L	1	USB0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
n-Butylbenzene		ND	0.50	0.13	µg/L	1	USB0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,2-Dichlorobenzene		ND	0.50	0.12	µg/L	1	USB0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,2-Dibromo-3-chloropropane (DBCP)		ND	5.0	0.39	µg/L	1	USB0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,2,4-Trichlorobenzene		ND	1.0	0.10	µg/L	1	USB0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Hexachlorobutadiene		ND	1.0	0.10	µg/L	1	USB0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Naphthalene		ND	0.50	0.15	µg/L	1	USB0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
1,2,3-Trichlorobenzene		ND	0.50	0.10	µg/L	1	USB0912	DTH	2/9/15 13:30	2/9/15 20:30	EPA 8260B
Surrogate: 4-Bromofluorobenzene		100 %	70-130				USB0912		2/9/15 13:30	2/9/15 20:30	EPA 8260B
Surrogate: Dibromofluoromethane		119 %	70-130				USB0912		2/9/15 13:30	2/9/15 20:30	EPA 8260B
Surrogate: Toluene-d8		107 %	70-130				USB0912		2/9/15 13:30	2/9/15 20:30	EPA 8260B

























Notes and Definitions

MS1	Recovery for this analyte was affected by matrix.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). Same as DNQ - Detected, but Not Quantified.
BS3	Recovery for this analyte was biased high. Associated samples were ND.
ug/L	micrograms per liter (parts per billion concentration units)
mg/kg	milligrams per kilogram (parts per million concentration units)
mg/L	milligrams per Liter (parts per million concentration units)
ND	Analyte NOT DETECTED at or above the Minimum Detection Limit (MDL)
RPD	Relative Percent Difference

Kerman, CA

« Previous Month	« 2013	December 2014					2015 »	Next Month »
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
	1  Actual: 74 48 Precip: 0.00 Average: 58 37 Precip: 0.02	2  Actual: 61 48 Precip: 0.49 Average: 58 37 Precip: 0.03	3  Actual: 75 57 Precip: 0.03 Average: 57 37 Precip: 0.04	4  Actual: 89 56 Precip: 0.02 Average: 57 37 Precip: 0.03	5  Actual: 66 54 Precip: 0.00 Average: 57 37 Precip: 0.04	6  Actual: 73 53 Precip: T Average: 56 37 Precip: 0.04		
7  Actual: 68 47 Precip: 0.00 Average: 56 37 Precip: 0.05	8  Actual: 67 39 Precip: 0.00 Average: 56 37 Precip: 0.04	9  Actual: 54 46 Precip: 0.00 Average: 56 36 Precip: 0.04	10  Actual: 58 50 Precip: 0.00 Average: 55 36 Precip: 0.05	11  Actual: 65 51 Precip: 0.22 Average: 55 36 Precip: 0.04	12  Actual: 52 48 Precip: 1.32 Average: 55 36 Precip: 0.05	13  Actual: 55 45 Precip: 0.00 Average: 55 36 Precip: 0.05		
14  Actual: 53 42 Precip: 0.00 Average: 54 36 Precip: 0.05	15  Actual: 55 42 Precip: 0.26 Average: 54 36 Precip: 0.06	16  Actual: 63 44 Precip: 0.00 Average: 54 36 Precip: 0.07	17  Actual: 58 46 Precip: 0.18 Average: 54 36 Precip: 0.06	18  Actual: 61 45 Precip: 0.00 Average: 54 36 Precip: 0.06	19  Actual: 58 41 Precip: 0.03 Average: 53 36 Precip: 0.06	20  Actual: 62 51 Precip: 0.01 Average: 53 36 Precip: 0.07		
21  Actual: 62 48 Precip: 0.00 Average: 53 36 Precip: 0.06	22  Actual: 61 49 Precip: 0.01 Average: 53 36 Precip: 0.07	23  Actual: 65 42 Precip: 0.00 Average: 53 36 Precip: 0.06	24  Actual: 60 46 Precip: T Average: 53 36 Precip: 0.07	25  Actual: 58 36 Precip: 0.00 Average: 53 36 Precip: 0.07	26  Actual: 53 31 Precip: 0.00 Average: 53 36 Precip: 0.06	27  Actual: 56 30 Precip: 0.00 Average: 52 36 Precip: 0.08		
28  Actual: 55 32 Precip: 0.00 Average: 52 36 Precip: 0.08	29  Actual: 55 31 Precip: 0.00 Average: 52 36 Precip: 0.07	30  Actual: 46 29 Precip: 0.00 Average: 52 36 Precip: 0.07	31  Actual: 49 26 Precip: 0.00 Average: 52 36 Precip: 0.06					


















































Month Precipitation - Actual month total: 2.88 Normal month total: 1.70

Calendar Key										Data Category	
	Sunny		Mostly Cloudy		Partly Sunny		Mostly Sunny		Partly Cloudy		Rain
	Snow		Cloudy		Hail		Thunderstorms		Hazy		Fog
	Sleet		Unknown		Hail		Thunderstorms		Hazy		Fog
	Sleet		Unknown		Hail		Thunderstorms		Hazy		Fog
denotes chance										Data Category	
of										Condition	
										High Temp.	
										Lo Temp.	
										Precip. (in inches)	
										Daily Avg. Temp.	
										Temps in °F	
										-80 -30 0 30 60 90 120	



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Kerman, CA

« Previous Month	« 2014	January 2015					2015 »	Next Month »
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
				1 	2 	3 		
				Actual: 53 27 Precip: 0.00 Average: 52 37 Precip: 0.12	Actual: 53 28 Precip: 0.00 Average: 52 37 Precip: 0.13	Actual: 55 26 Precip: 0.00 Average: 52 37 Precip: 0.11		
4 	5 	6 	7 	8 	9 	10 		
Actual: 55 30 Precip: 0.00 Average: 52 37 Precip: 0.10	Actual: 50 31 Precip: 0.00 Average: 52 37 Precip: 0.10	Actual: 62 34 Precip: 0.00 Average: 52 37 Precip: 0.10	Actual: 67 34 Precip: 0.00 Average: 53 37 Precip: 0.10	Actual: 66 37 Precip: 0.00 Average: 53 37 Precip: 0.10	Actual: 64 43 Precip: 0.00 Average: 53 37 Precip: 0.09	Actual: 63 43 Precip: 0.00 Average: 53 37 Precip: 0.10		
11 	12 	13 	14 	15 	16 	17 		
Actual: 65 41 Precip: 0.00 Average: 53 37 Precip: 0.10	Actual: 55 40 Precip: 0.00 Average: 53 37 Precip: 0.10	Actual: 59 42 Precip: 0.00 Average: 53 37 Precip: 0.08	Actual: 59 34 Precip: 0.00 Average: 53 37 Precip: 0.09	Actual: 47 41 Precip: T Average: 53 37 Precip: 0.08	Actual: 50 41 Precip: 0.00 Average: 54 37 Precip: 0.07	Actual: 53 44 Precip: 0.00 Average: 54 37 Precip: 0.08		
18 	19 	20 	21 	22 	23 	24 		
Actual: 50 44 Precip: 0.00 Average: 54 37 Precip: 0.08	Actual: 50 46 Precip: 0.00 Average: 54 37 Precip: 0.08	Actual: 50 47 Precip: 0.00 Average: 54 37 Precip: 0.07	Actual: 50 47 Precip: 0.00 Average: 55 37 Precip: 0.08	Actual: - - Precip: 0.00 Average: 58 38 Precip: 0.07	Actual: 48 46 Precip: 0.00 Average: 55 38 Precip: 0.06	Actual: 50 42 Precip: 0.00 Average: 55 38 Precip: 0.06		
25 	26 	27 	28 	29 	30 	31 		
Actual: 50 38 Precip: 0.00 Average: 55 38 Precip: 0.04	Actual: 56 33 Precip: 0.00 Average: 58 38 Precip: 0.04	Actual: 56 48 Precip: 0.03 Average: 56 38 Precip: 0.04	Actual: 53 43 Precip: 0.00 Average: 56 38 Precip: 0.05	Actual: 61 43 Precip: 0.00 Average: 57 38 Precip: 0.05	Actual: 64 41 Precip: 0.00 Average: 57 38 Precip: 0.05	Actual: 63 40 Precip: 0.00 Average: 57 38 Precip: 0.05		
Month Precipitation - Actual month total: 0.03 Normal month total: 2.45								
Calendar Key  Sunny  Clear  Mostly Cloudy  Partly Sunny  Mostly Sunny  Partly  Cloudy  Rain  Snow  Hail  Flurries  Thunderstorms  Cloudy  Hazy  Fog  Sleet  denotes 'chance'  Unknown						Data Category Condition High Temp. Lo Temp. Precip. (in inches) Daily Avg. Temp. Temps in °F Actual: 90 58 Precip: 0.00 Average: 71 53 Precip: 0.03 60-90 0 30 60 90 120		

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No precipitation Feb. 1 through Feb. 4